



January 4, 2008

Public Works, Capital Projects Division
47140 East Poppy Lane
Soldotna, Alaska 99669

Attn: Kevin Lyon, Director
Project: Bear Creek Community Multi-Use Facility
Project No.: 06041.01/03

Subject: Denali Commission Grant Requirements

Dear Mr. Lyon:

Per your request we are addressing the Denali Commission grant application which requires that the Kenai Peninsula Borough submit 95% Construction Drawings that are stamped with professional seals. However, this requirement is in conflict with state licensing law regarding the use of professional seals.

Alaska statute 08.48.221 reads, "When a registrant issues final (emphasis added) drawings, specifications, surveys, plats, plates, reports, or similar documents, the registrant shall sign the documents and stamp the documents with the seal." This is further amplified by 12 AAC 36.186 Division of Occupational Licensing regulations, which read in part, "A registrant may (3) seal only final (emphasis added) drawings, surveys, reports, and required construction documents."

By definition, 95% documents are not final documents and are not ready for construction. They are awaiting the final review and approval of the architect and/or engineer of record, the owner, and in some cases, funding agencies. The last 5% of design occurs after each of these entities review the documents one final time prior to issuance of the 100% documents. This allows for any final revisions requested by the Owner or funding agency to be incorporated into the final documents. We are happy to provide the professional seals on the documents after this has occurred and 100% (final) documents are issued as required by statute and regulation.

We are able to state unequivocally, that the documents that we have submitted for the Bear Creek Community Multi-use Facility are indeed 95% complete. But we are not permitted by law to stamp them until they are 100% complete. It is our hope that the Denali Commission will understand this dilemma and accept the documents as submitted. For reference, my professional seal below is provided as an example to indicate that I am indeed a registered architect and will affix this stamp to the drawings upon completion of the 100% (final) documents.

Respectfully submitted,

David L. Moore, AIA
Registered Professional Architect, Alaska # A-9190



Kenai Peninsula Borough

Bear Creek Community
Multi-Use Facility

Construction Documents
95% Submittal

October 12, 2007

Volume I of II



This design was produced in part with Multi-Use Facilities Grant Assistance funds made available through the Department of Commerce, Community and Economic Development and the Denali Commission

Prepared by:



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Kenai Peninsula Borough

Bear Creek Community Multi-Use Facility

Construction Documents 95% Submittal

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Volume II of II



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INDEX

VOLUME I

SECTION 02300	EARTHWORK
SECTION 02510	WATER DISTRIBUTION
SECTION 02580	PAVEMENT MARKING
SECTION 02741	HOT-MIX ASPHALT PAVING
SECTION 02751	CEMENT CONCRETE PAVEMENT
SECTION 02890	TRAFFIC SIGNS
SECTION 02920	TOPSOIL
SECTION 02931	SEEDING
SECTION 03300	CAST-IN-PLACE CONCRETE
SECTION 04810	UNIT MASONRY ASSEMBLIES
SECTION 04812	CONCRETE FORM MASONRY ASSEMBLIES
SECTION 05120	STRUCTURAL STEEL
SECTION 05210	STEEL JOISTS
SECTION 05310	STEEL DECK
SECTION 05400	COLD-FORMED METAL FRAMING
SECTION 05500	METAL FABRICATIONS
SECTION 05511	METAL STAIRS AND RAILINGS
SECTION 06105	MISCELLANEOUS CARPENTRY
SECTION 06160	SHEATHING
SECTION 06402	INTERIOR ARCHITECTURAL WOODWORK
SECTION 07190	WATER REPELLENTS
SECTION 07210	BUILDING INSULATION
SECTION 07311	ASPHALT SHINGLES
SECTION 07460	SIDING
SECTION 07531	ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM)
	ROOFING
SECTION 07620	SHEET METAL FLASHING AND TRIM
SECTION 07841	THROUGH-PENETRATION FIRESTOP SYSTEMS
SECTION 07920	JOINT SEALANTS
SECTION 08110	STEEL DOORS AND FRAMES
SECTION 08211	FLUSH-WOOD-DOORS
SECTION 08361	SECTIONAL OVERHEAD DOORS
SECTION 08411	ALUMINUM-FRAMED ENTRANCES, STOREFRONTS, WINDOWS
SECTION 08562	FIBERGLASS WINDOWS
SECTION 08710	DOOR HARDWARE
SECTION 08800	GLAZING
SECTION 09111	NON-LOAD-BEARING STEEL FRAMING
SECTION 09250	GYPSUM BOARD
SECTION 09310	CERAMIC TILE
SECTION 09511	ACOUSTICAL PANEL CEILINGS
SECTION 09653	RESILIENT FLOOR BASE AND ACCESSORIES
SECTION 09680	CARPET
SECTION 09912	INTERIOR PAINTING
SECTION 10350	FLAGPOLES
SECTION 10431	SIGNAGE

SECTION 10436
SECTION 10522
SECTION 10523
SECTION 10801
SECTION 11451
SECTION 12485

POST AND PANEL SIGNS
FIRE EXTINGUISHER CABINETS
FIRE EXTINGUISHERS
TOILET AND BATH ACCESSORIES
RESIDENTIAL APPLIANCES
FOOT GRILLES

VOLUME II

SECTION 15010
SECTION 15050
SECTION 15060
SECTION 15065
SECTION 15070
SECTION 15075
SECTION 15080
SECTION 15130
SECTION 15140
SECTION 15150
SECTION 15160
SECTION 15181
SECTION 15182
SECTION 15190
SECTION 15192
SECTION 15196
SECTION 15211
SECTION 15400
SECTION 15511
SECTION 15732
SECTION 15760
SECTION 15771
SECTION 15810
SECTION 15820
SECTION 15830
SECTION 15850
SECTION 15860
SECTION 15900
SECTION 15910
SECTION 15915
SECTION 15940
SECTION 15945

SECTION 15950
SECTION 16010
SECTION 16050
SECTION 16111
SECTION 16115
SECTION 16120
SECTION 16131
SECTION 16132
SECTION 16140

MECHANICAL GENERAL REQUIREMENTS
BASIC MATERIALS AND METHODS
HANGERS AND SUPPORTS
MECHANICAL SEISMIC CONTROL
MECHANICAL SOUND AND VIBRATION CONTROL
MECHANICAL IDENTIFICATION
MECHANICAL INSULATION
MOTORS
DOMESTIC WATER PIPING AND SPECIALTIES
SANITARY WASTE AND VENT PIPING
STORM DRAINAGE PIPING
HYDRONIC PIPING AND SPECIALTIES
HVAC PUMPS
INTERIOR TRENCH EXCAVATION AND BACKFILL
FUEL OIL PIPING AND SPECIALTIES
ABOVEGROUND STORAGE TANKS
COMPRESSED AIR SYSTEMS
PLUMBING FIXTURES & EQUIPMENT
CAST IRON HEATING BOILERS AND ACCESSORIES
TELECOM ROOM AIR-CONDITIONING UNITS
TERMINAL HEATING AND COOLING UNITS
RADIANT FLOOR HEATING EQUIPMENT
DUCTS
DUCT ACCESSORIES
FANS
AIR OUTLETS AND INLETS
AIR CLEANING DEVICES
BUILDING AUTOMATION AND CONTROL
BUILDING AUTOMATION SYSTEM FIELD DEVICES
VARIABLE SPEED DRIVES
SEQUENCES OF OPERATIONS
BUILDING AUTOMATION SYSTEM TESTING AND
ACCEPTANCE
TESTING, ADJUSTING AND BALANCING
ELECTRICAL GENERAL REQUIREMENTS
BASIC MATERIALS AND METHODS
CONDUIT AND FITTINGS
CABLE PATHWAY SUPPORT
WIRE AND CABLE
OUTLET BOXES
PULL AND JUNCTION BOXES
WIRING DEVICES

SECTION 16190
SECTION 16201
SECTION 16440
SECTION 16450
SECTION 16470
SECTION 16471
SECTION 16475
SECTION 16485
SECTION 16487
SECTION 16500
SECTION 16501
SECTION 16723
SECTION 16745
SECTION 16770
SECTION 16781
SECTION 16920
SECTION 16995

SUPPORTING DEVICES
EMERGENCY/ STANDBY GENERATION SYSTEM
DISCONNECTS
GROUNDING
PANELBOARDS
TRANSIENT VOLTAGE SURGE SUPPRESSION
OVERCURRENT PROTECTIVE DEVICES
MOTORS STARTERS
CONTACTORS
LIGHTING FIXTURES
LAMPS, BALLASTS, AND ACCESSORIES
ADDRESSABLE FIRE AND SECURITY ALARM SYSTEM
TELECOMMUNICATIONS DISTRIBUTION SYSTEM
PUBLIC ADDRESS SYSTEM
CATV SYSTEM
POWER MONITORING AND CONTROL SYSTEM
ELECTRICAL COMMISSIONING

PART 1. GENERAL

1.1 DESCRIPTION OF WORK

- A. The extent of earthwork is shown on drawings and includes, but is not limited to all excavation, backfill, and final grading necessary and incidental for the site improvements.

1.2 RELATED REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections.
- B. Terms and conditions of the US Army Engineer District, Alaska permit number POA-2006-902-D, attached at the end of this section, apply to this project. All work shall be done in accordance with the permit requirements and special conditions.

1.3 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

- A. American Society for Testing and Materials (ASTM)
- | | | |
|----|--------------|--|
| 1. | ASTM C 136 | Sieve Analysis of Fine and Coarse Aggregate |
| 2. | ASTM D 1556 | Test Method for Density of Soils in Place by Sand-Cone Method |
| 3. | ASTM D 1557 | Test Methods for Moisture-Density of Soils and Soil-Aggregate Mixtures |
| 4. | ASTM D 2922 | Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods |
| 5. | AASHTO T 180 | Moisture-Density Relations of Soils Using a 10-lb Rammer and an 18-inch Drop |
| 6. | AASHTO T 224 | Correction for Coarse Particles in the Soil Compaction Test |

1.4 QUALITY ASSURANCE

- A. Employ a qualified independent testing and inspection company to perform required soil testing and inspection services during earthwork operations. The testing and inspection company shall have a minimum of five years experience in performance and compliance testing in Alaska for the type of tests specified herein. The testing and inspection company shall be approved by the Project Representative.

SECTION 02300
EARTHWORK

B. Testing Standards

1. Where compaction density is specified, the maximum density shall be determined in accordance with the current requirements of ASTM D 1557. Since ASTM D 1557 applies only to soils that have 30 percent or less by weight of their particles retained on the 3/4 inch sieve, the degree of compaction for material having more than 30 percent by weight of their particles retaining on the 3/4 inch sieve shall be expressed as a percentage of the maximum density in accordance with AASHTO T 180 Method D and corrected with AASHTO T 224. To maintain the same percentage of coarse material, the "remove and replace" procedure as described in the Note 8 in Paragraph 7.2 of AASHTO T180 shall be used.
2. The in-place soil density may be determined by use of:
 - a. ASTM D 2922.
 - b. ASTM D 1556.
3. Compaction tests shall be taken on each lift of fill or backfill, including trenches, and at the average rate of one test per 5000 square feet of graded improved horizontal areas, and maximum of 100 feet on center for utility trenches. Failing tests shall be retested at no additional cost to the Owner.
4. Gradation test, in accordance with ASTM C 136, shall be performed on each type of aggregate materials used in fills and backfills at the rate of one test per 1,500 cubic yards or each day's haul, whichever is less material.

- C. Notify Project Representative a minimum of 24 hours in advance of the time at which field testing and inspections will be performed.

1.5 JOB CONDITIONS

- A. Site Information: Soil boring logs are attached at the end of this section. The geotechnical information is not intended as representations or warranties of accuracy or continuity between soil borings, but is made available for the convenience of the Contractor. The Project Representative will not be responsible for interpretations or conclusions drawn by Contractor.

B. Existing Utilities:

1. Obtain utility locates from authorities having jurisdiction. Note existing underground utilities in areas of work, and provide adequate means of protection during earthwork operations.
2. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult Project Representative immediately for directions. Cooperate in keeping respective services and facilities in operation. Repair damaged utilities to satisfaction of the Project Representative.

- C. Use of Explosives is not permitted.

D. Protection of persons and property:

1. Barricade open excavations occurring as part of this work.
2. Post and operate warning lights as recommended by authorities having jurisdiction.

SECTION 02300
EARTHWORK

3. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- E. All due consideration for fluctuations in weather shall be considered by the Contractor. No additional compensation will be made for working in difficult weather or seasonal site conditions including, but not limited to, cold, snow, rain, freezing, or mud conditions. Additionally, the Contractor shall provide, as needed, snow removal, grading, and equipment heat.

PART 2. PRODUCTS

2.1 DEFINITIONS

- A. Classified Material
1. Granular soils free of organic material or other deleterious material, composed of unfrozen gravels and/or sands, well graded according to limitations set forth below, and which can be compacted to a tight unyielding surface. ASTM D-424 plasticity index less than 6.
 2. Type II Classified Material - meet Table II gradation requirements.

Table II

<u>U.S. Std Sieve</u>	<u>Cumulative % Passing By Weight</u>
8"	100
3"	70-100
1-1/2"	55-100
3/4"	45-85
#4	20-60
#10	12-50
#40	4-30
#200	2-6

3. Type II-A Classified Material - meet Table IIA gradation requirements.

Table II-A

<u>U.S. Std Sieve</u>	<u>Cumulative % Passing By Weight</u>
3"	100
3/4"	50-100
#4	25-60
#10	15-50
#40	4-30
#200	2-6

SECTION 02300
EARTHWORK

4. Type III Classified Material - meet Table III gradation requirements.

Table III

U.S. Std Sieve	Cumulative % Passing By Weight
4"	100
2"	85-100
#40	30-70
#200	10 Max

5. Type IV Classified Material - classified material with a maximum of 25% passing the #200 sieve.
6. Creek Gravel - meet Table A gradation requirements.

Table A

U.S. Std Sieve	Cumulative % Passing By Weight
4"	85-100
2"	50-80
1"	30-50
1/2"	10-25
#4	5-10
#200	0-5

- B. Unclassified Material: Inorganic soils, free of trash, peat, volcanic ash, debris, frozen clods, silts with a plasticity index greater than 6, which are capable of being satisfactorily compacted.
- C. Suitable Material: Soil materials which qualify as "classified" or "unclassified" material and which can be satisfactorily compacted or otherwise used in the work.
- D. Unsuitable Material: Soil materials which do not qualify for "classified" or "unclassified" material and which cannot be satisfactorily compacted or otherwise used in the work.
- E. Subgrade: Undisturbed soil material immediately below any excavation (cuts) and fills.
- F. Geotextile Material: Separation fabric - Woven, Amoco 2002 or approved substitution.
- G. Usable Excavation: Excavated soil material which qualifies as "classified" or "unclassified" material and which can be satisfactorily compacted or otherwise used in the work.
- H. Unusable Excavation: Excavated soil material which does not qualify as "classified" or "unclassified" material.
- I. Boulders: Individual one-piece rock, occupying between 1.5 and 2.5 cubic yards in volume, weighing between 3 to 5 tons.

PART 3. EXECUTION

3.1 EXCAVATION

- A. Excavation consists of the removal and reuse or disposal of all materials encountered to obtain the required subgrade elevations. Excess material not incorporated in the work shall be removed from the site. Perform excavation as indicated on the drawings and as follows
 - 1. The excavation shall be shaped to drain and shall be maintained in a dry condition, free of puddles or holes where water may accumulate.
 - 2. Plan operations in a sequence that will provide drainage at all times. Any areas not so drained shall be kept free of standing water by pumping, if necessary.
- B. Subgrade shall be as indicated on the drawings. Conform to elevations and dimensions shown within a tolerance of plus or minus 0.10'.
- C. Take care not to disturb bottom of excavation. Trim bottoms to required lines and grades to leave solid base to receive work. The upper 6" of receiving surface shall be compacted to not less than 95% of maximum dry density.
- D. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction.
 - 1. Unauthorized excavation, as well as remedial work as directed, shall be at Contractor's expense.
 - 2. Backfill and compact unauthorized excavations as specified for authorized excavations of same classification.
- E. Additional Excavation: When excavation has reached required subgrade elevations, notify Project Representative who will make an inspection of conditions.
 - 1. If unsuitable bearing materials are encountered at required subgrade elevations, carry excavations deeper and replace excavated material as directed with classified material.
 - 2. No compensation will be allowed unless Contractor notifies Project Representative of unsuitable materials prior to additional excavation.
- F. Stability of Excavations: Slope sides of excavations to comply with local codes and ordinances having jurisdiction.
 - 1. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated.
 - 2. Maintain sides and slopes of excavations in safe condition until completion of backfilling.
- G. Material Storage: Stockpile suitable excavated materials on-site, until required for backfill

SECTION 02300
EARTHWORK

or fill. Place, grade, and shape stockpiles for proper drainage.

1. Locate and retain soil materials away from edge of excavations.
2. Dispose of excess soil materials and waste materials off site.

H. Cold Weather Protection: Protect excavation bottoms against freezing when the atmospheric temperature is less than 35 degrees F by covering with dry insulating materials of sufficient depth to prevent frost penetration.

I. Perform excavation work in compliance with governing local, state and federal regulations for safety requirements.

3.2 FILL AND BACKFILL

A. General

1. When the quantity of suitable soils material required for the work exceeds that available from excavated materials, the additional material shall be from Contractor-furnished borrow areas. The Contractor shall locate, obtain, develop, and process suitable materials to complete the requirements of work.
2. Fills and backfills shall consist of classified and unclassified materials, as required, to obtain the proper grades, sections, and contours as indicated on the drawings. Fill and backfill materials placed in excess of these requirements shall not be paid for unless authorized by a fully executed change order.
3. All excavated materials, satisfying the classified or unclassified material description shall, insofar as practicable, be incorporated in the work.
4. Areas to receive fill and backfill shall be free of organic topsoil, vegetation, trash, debris and other unsuitable material. The receiving surface shall be uniformly graded to the specified tolerances and grades indicated.
5. The Contractor shall keep all fills and backfill well shaped, drained and maintained. In the event bearing surfaces are softened by water or frost, re-excavate to approved bearing material and backfill to designated elevations with compacted backfill specified herein, at no cost to the Owner.
6. Do not start backfilling operations until systems have been inspected.
7. All fill and backfill shall be placed and compacted in lifts not exceeding 12" maximum thickness.

3.3 COMPACTION REQUIREMENTS

- A. Compaction of all fill and backfill, including trench fill and backfill, shall be continued until a minimum of 90 percent of maximum dry density determined by ASTM D-1557 or AASHTO T-180D is obtained.

SECTION 02300
EARTHWORK

3.4 MAINTENANCE

- A. Water the site while grading is in progress to control dust.
- B. Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
- C. Repair and re-establish grades in settled, eroded and rutted areas to specified tolerances.
- D. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape and compact to required density prior to further construction.

END OF SECTION